

Patent Claims

1. A method for filling a compressed-gas container,
5 in particular a compressed-gas container in an
airbag system, with a gas mixture or for producing
a gas mixture in a compressed-gas container, in
which a gas mixture as gas or cryogenically
10 liquefied gas or at least one gas component of the
gas mixture as gas or cryogenically liquefied gas
is introduced into a cooled compressed-gas
container.
2. The method as claimed in claim 1, characterized in
15 that a pressure is generated in the filled and
closed compressed-gas container by warming.
3. The method as claimed in claim 1 or 2,
20 characterized in that the warming is effected by
active heating or by temperature compensation to
room temperature, ambient temperature or a
temperature above 0°C.
4. The method as claimed in one of claims 1 to 3,
25 characterized in that the compressed-gas container
is externally cooled with a cryogenically
liquefied or a cryogenically liquefied gas
mixture, or the cooling of the pressurized
30 container is effected by means of a refrigeration
bath, a cooling block, a cold gas, cold solid
particles or a thermostated cooling device.
5. The method as claimed in one of claims 1 to 4,
35 characterized in that the filling of the
compressed-gas container takes place at a
refrigeration temperature of at least -50°C or
below.

6. The method as claimed in one of claims 1 to 5, characterized in that the filling of the compressed-gas container takes place at a constant or substantially constant temperature.
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7. The method as claimed in one of claims 1 to 6, characterized in that the determination and monitoring of the filling quantity during the filling of the compressed-gas container with
- 10 cryogenically liquefied gas or a cryogenically liquefied gas mixture are carried out gravimetrically or volumetrically.
8. The method as claimed in one of claims 1 to 7,
- 15 characterized in that the determination and monitoring of the filling quantity of the gaseous gas or gas mixture during the filling operation takes place manometrically.
- 20 9. The method as claimed in one of claims 1 to 8, characterized in that a measurement gas container is used.
10. The method as claimed in one of claims 1 to 9,
- 25 characterized in that the introduction of cryogenically liquefied gas or cryogenically liquefied gas mixture into the compressed-gas container is effected by condensation of a gas in the cooled compressed-gas container.
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11. The method as claimed in one of claims 1 to 10, characterized in that the compressed-gas container is filled with a gaseous gas or gas mixture by filling with at least one gaseous gas mixture that
- 35 has previously been produced or by successive filling with a gaseous gas or by successive filling with at least one gaseous gas and at least one gaseous gas mixture.

12. The method as claimed in one of claims 1 to 11, characterized in that the filling of the compressed-gas container with a gas or gas mixture takes place under pressure.

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13. The use of a cooled or cryogenically liquefied gas or gas mixture for producing a gas mixture in a compressed-gas container or for pressurized filling of a pressurized-gas container with a gas mixture.

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14. The use as claimed in claim 13, characterized in that the compressed-gas container is a pressure vessel in an airbag system.